

3.8 RF Exposure Compliance

MPE Requirement:

$$S = f / 1500 \text{ mW/cm}^2$$

f = operating frequency

$$S = 824 / 1500 = 0.55 \text{ mW/cm}^2$$

Calculation:

Antenna Gain = 2.0di

The maximum ERP power = 1.57W

D = distance of 20cm

$$S_{\text{(mW)}} = \text{ERP}_{\text{(mW)}} / 4\pi D^2, \text{ or } S_{\text{(mW)}} = 1570 / 4\pi 400 = 0.312 \text{ mW/cm}^2, < 0.55 \text{ mW/cm}^2$$

3.8 RF Exposure Compliance

MPE Requirement:

1.0 mW/cm²

Calculation:

Antenna Gain= -0.4dBi

The maximum EIRP power = 0.79W

D = distance of 20cm

$S_{(mW)} = ERP_{(mW)} / 4\pi D^2$, or $S_{(mW)} = 250 / 4\pi 400 = 0.157 \text{ mW/cm}^2$, < 1.0 mW/cm²